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ABSTRACT OF THE DISCLOSURE

The present invention relates to an improved flap valve or other internal component for use with respiratory suction catheter and manifold assemblies. This flap valve or other internal component provides the assembly with an improved mechanism for cleaning the tip of the catheter without drawing an excessive amount of air from the respiration circuit to which the endotracheal catheter is attached. More specifically, the present invention relates principally to a closed suction endotracheal catheter system which provides improved cleaning of the catheter while minimizing air drawn from the patient's ventilation circuit by providing at least one protrusion on at least one surface of the flap valve or other internal component. By using a flap valve or other internal component with at least one protrusion, the flap valve or other internal component is strengthened and designed to prevent the flap from scraping mucus or other secretions from the catheter onto the distal surface of the flap during retraction. Moreover, when multiple protrusions are formed therein, the formation of a bridge between each protrusion will improve the ability of the protrusion to improve cleaning of the assembly by seraping mucus and secretions from the retracting catheter while strengthening the flap valve so it will not deform as the eatheter translates through the assembly.